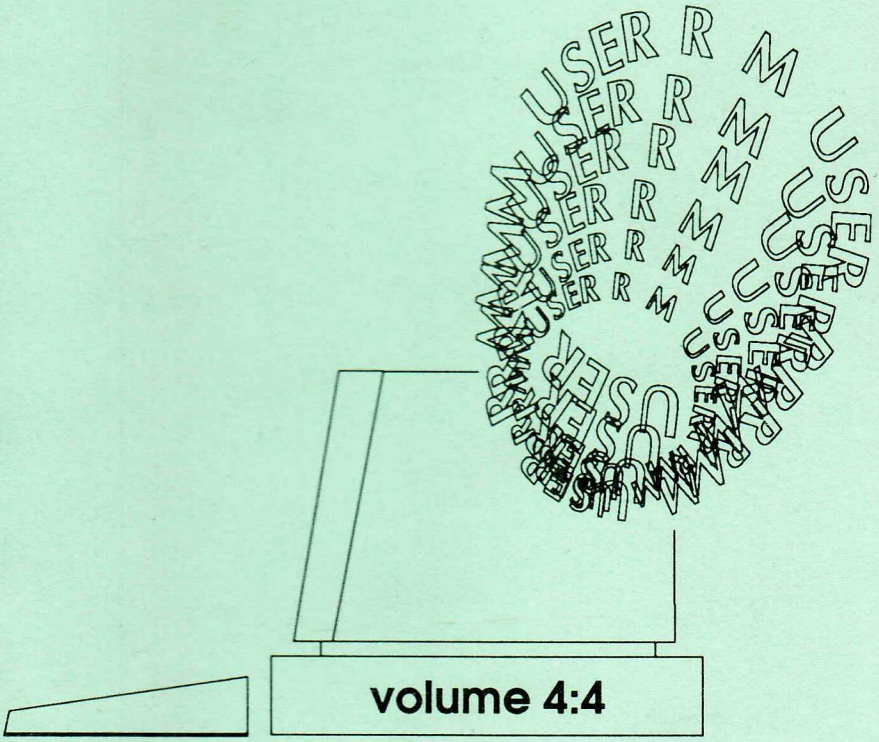
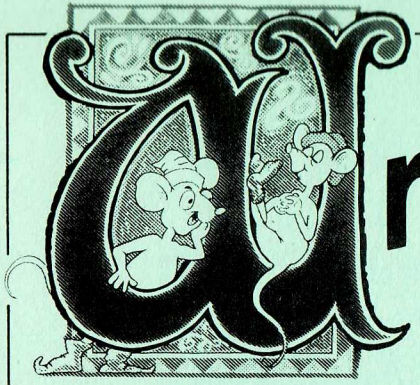
RM USER magazine

february 1990



the magazine for NIMBUS users everywhere



rite On!

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- Full *WYSIWYG* word processing
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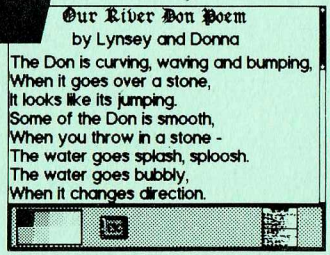
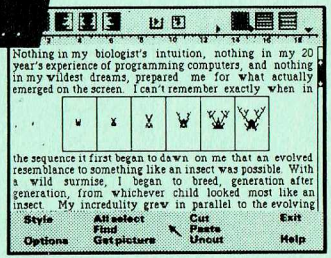

Our River Don Poem
by Lynsey and Donna
The Don is curving, waving and bumping,
When it goes over a stone,
It looks like its jumping.
Some of the Don is smooth,
When you throw in a stone -
The water goes splash, sploosh.
The water goes bubbly,
When it changes direction.

For more advanced users . . .

- Variable margins and tab stops
- Formatting ruler display
- Include page breaks and footers
- Easy-to-use foreign accents
- Short cuts with function or CTRL keys


Nothing in my biologist's intuition, nothing in my 20 year's experience of programming computers, and nothing in my wildest dreams, prepared me for what actually emerged on the screen. I can't remember exactly when in
the sequence it first began to dawn on me that an evolved resemblance to something like an insect was possible. With a wild surmise, I began to breed, generation after generation, from whichever child looked most like an insect. My incredulity grew in parallel to the evolving
Style
All select
Cut
Exit
Find
Paste
Options
Get picture
Uncut
Help

SPA

WriteOn is available now for Nimbus; for IBM soon.
Nimbus or IBM £39 + VAT Nimbus network or IBM site licence £109 + VAT

PO BOX 59, Leamington Spa, Warwickshire CV31 3QA
Telephone (0926) 422959

HELP-LINE

The User Group contains a great body of expertise amongst its members and the help-line exists to act as a channel for spreading knowledge and especially answers to your problems.

Remember, your problems are also our problems!

If you are in difficulty, please feel free to **ring anybody on the Committee** (see inside back cover). We may not, individually, know the answers, but we hope that we may know someone who knows someone who.....!

The Group is on **TELECOM GOLD 83:JNL585**
(This is a *new* number)

Do feel free to write either to the Editor or the Secretary. This may be especially useful if the problem is complicated and non-urgent.

Advertising in the Magazine

Full- and half-page advertisements can be placed in the Magazine and details can be obtained from the Advertising Manager (address on Committee Page at back. We also take classified adds and members may place free adds for surplus kit in Micro-Mart, provided a valid membership number is quoted with the add.

Rates

Back Cover: £75 Inside Cover: £60 Full Page: £50

Half-page: £30 Classified: £5 / 100 words

These rates assume black-on-white, camera-ready copy. Please **avoid** dot-matrix output. Typesetting is charged at cost and is **additional** to the above rates. Classified adds **must** be pre-paid, cheques for £5 payable to RM User Group

The deadline for the next issue is April 21st 1990

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Editorial

By the time you read this, the Group's AGM will be imminent and so should be the end of my editorship - assuming that a replacement is appointed! You might just find me continuing, perish the thought! It should be an ideal opportunity to say my final words from the Editor's Chair on matters RM, RM User, RM User Group, educational computing and even computing in general! *Is there anything left?* I hear you cry.

At the end of five years of editing, first *Read Using* and, latterly, *RM User* - as well as watching the Journal mutate into the Magazine - there is much on which to reflect.

I read in today's *Sunday Times* an article about Mike Fischer and RM's growth and development and future share issue. March's *Micro Decision* contains a postive review of the new VX486 and RM's February issue of *RM Update* contains a one-paragraph history of *SPA*'s development.

My five years as Editor have coincided partly with some of *SPA*'s history and wholly with RM's move into the MSDos world as it was in 1985 (when I took up the post) that RM released the Nimbus PC-186.

It's interesting that *SPA*'s latest major package, *WRITEON!*, is described as *''The Word Processor that grows up with your pupils''*. Perhaps during the past five years both RM and the RM User Group have also grown up.

RM has moved from an apparently idiosyncratic hardware supplier of educational computers to one which is undoubtedly the best in the field and a major commercial microcomputer manafacturer in the UK. It needs to be remembered that the 1990's, which have been referred to as the decade of the LAN, RM have supplied more LANs than anybody else in the UK and have amassed great expertise in this field.

When I joined my school into the User Group in 1984, we were struggling with the 8-bit CHAIN network. 1983 had, in fact, been a fun year with Net 1.1 for that system, as older members of the group will no doubt appreciate!

My predecessor as Editor, Delwyn McPhun of *SPA*, had published in his last edition - February *Read Using*, 1985 - a detailed review of the then new Nimbus. My succeeding issues saw that machine and its successors increase in prominence and the 8-bit world decline.

In the real world, outside of magazines, the 8-bit, 480Z network still soldiers on.

Mine is in use every day and, even now, expects its long-awaited upgrade to CHAIN-64. However, the 480Z is, as they say, a "mature" product. Little new comes its way, although RM (and *SPA*!) still support the machine in varying degrees.

RM have moved on from their mission, with the PC-186, to build a better mousetrap (in which they, by and large, succeeded) based on non-IBM compatability. Market pressures have, perhaps, forced them to go the path of IBM compatability. What is intriguing is the extent to which RM have become leaders, rather than followers.

As Jack Schofield suggested some years back in *Computer Guardian*, RM led with 3.5" drives and IBM followed. Others have commented upon RM's software bundle, the online support and the "plug-in-and-go" network system they provide.

We all have our impressions, views, opinions and complaints about the products RM sell. Being in the User Group suggests that we hold opinions somewhere from love to hate, depending on the time of day! My pet hate was always a single-density, CP/M 1.x, 72K capacity drive oddly organised on the dear old 380Z. My gratitude to RM lies in their doggard devotion to Windows - what Microsoft (and everybody else) is now calling the Graphical User Interface, GUI for short. I confess that I think Windows is (are?) wonderful and I eagerly await Windows 3 later this year - mostly because PageMaker 4 for the PC depends upon it!

I believe that RM's commitment to provide real, commercial software in the network bundle has had a major influence upon the use of computers in schools.

What of the User Group? During the past five years it has sometimes struggled to grow, but numbers have never fallen too much and the Nimbus family has brought many members. Our biggest problem has been to make ourselves known to purchasers of RM kit. There used to be a time when RM put information about the group into every box - which is how I learnt of the Group. That stopped some years ago and we have not yet been able to persuade RM to go back to that, even though they have been supportive in many other ways.

Recently, we have mailed all secondary schools in the UK and this has brought a gratifying response.

In the past few years we have moved firmly away from RM. When I started editing, we always met at RM and the company paid for lunch. Now we meet elsewhere and buy our own. This establishing of our independence has been beneficial in many ways. The User Group has grown to be heathily independent, its magazine says what it likes and the Committee expresses the views of

members firmly and honestly. In all of this, we maintain good, personal relationships with many at Mill Street.

What of the future? The pointers are there. GUI's, 386/486 servers, admin/LMS networks, IT across the National Curriculum, (NATICUC), the demise of the PC-186 (!), and, above all, the User Group.

The magazine is the mouthpiece and the usefulness of the User Group. It ought to appear more often and if just 25% of all RM schools were regular members, then this could be a full-time job and RM User would appear monthly! Wishful thinking on my part?

However, the conference and the network server are now established parts of the User Group service. The conference has become a major event in the educational computing calendar and the network server, thanks to RM and Graham Townsend, is proving a major asset.

I'd better make a prophetic comment! I bet that once you've seen *Word for Windows*, you'll see how it is the ideal educational word-processor and rush to upgrade.

My successor should find plenty to do and new directions in which to go. What he/she needs is your support. I must express my gratitude to all those who, over the years, have written articles, letters, reviews for the Journal/Magazine. Thanks also to RM for their support. Thanks also to Aldus, for making my pages. Thanks to Mike Fischer for starting it all.

Lastly, thanks to my wife for her patience and the cover designs. She did it all for you, dear readers.

Somerset Information Technology Unit
Courseware materials to help you to integrate information technology in to your classroom. This range of workbooks and teachers notes provide support material for software packages commonly used in schools and colleges and are suitable for a variety of courses including GCSE, CPVE, YTS and BTEC. Available for RM Nimbus, BBC & IBM. Written by teachers for teachers.
For details and a catalogue contact SITU, The Collinson Centre, SCAT, Wellington Road, Taunton, Somerset TA1 5AX or telephone 0823 289411

AGM and Day Meeting

The Annual General Meeting
of the
Research Machines National User Group
will be held at
The Inner London Educational Computing Centre
John Ruskin Street, London
at 11am on

Saturday, 17th March 1990

followed by a Day Meeting

which will be addressed by

Roger Whitfield
(Director of ILECC)
on
The Future of ILECC/ITEM

Usual presence of such notables as

RM
Question Mark
Aurora
Micrografx
and others

plus the User Group server stuffed with software to see

Details from Graham Townsend
on 01-572-1936 (school)
0372-66043 (home)

or Stephen Rochford
on
091-268-2002

Letters

Micklefield School,
Seaford,
Sussex
BN25 4LP

Dear Mr Davies,

Your request, on page 37 of the December '89 issue of RM User, for material concerning BBCBasic86 and the running of BBC programs on the Nimbus PC-186 has prompted this letter. You say that you "eagerly welcome simple, straightforward stuff ..... no minumum length, either!"

Well, here it is: - impossible! (in my experience).

We purchased 6 Nimbus PC-186 stand-alone machines in 1988 and are still trying to run even one BBC program. This was written by a colleague at another school with considerable experience of writing software for the BBC - it is pure BASIC, and runs perfectly on our BBC B machine.

Phone calls to Technical Support achieved nothing. Then I had the opportunity to confer with Phil Davies - RM's "wizard" for this area - and he couldn't make it work. Problems seem to be centred on procedures, especially DEFPROC, and Phil has gone off with the program and a promise to get it sorted. I await developments! We've been waiting for 18 months, others presumably longer (or have they solved it?)

Isn't it time this was sorted out once and for all?

As I say, I await developments and the next issue of RM User.

Yours sincerely,

Jo Mayhew
(Mrs Jo Mayhew, Teacher i/c IT)

Northease Manor School,
Lewes,
Sussex.
BN7 3EY

Dear Mr Davies,

The post has just arrived with the latest edition of RM User - always very much welcome. I use the Norton Utilities on our networks and thought I'd write to say how easy they make life!

We have one AX network with a 60Mb hard disk server and another PC-186 network with a 20Mb server. Norton Utilities run equally well on both networks, although the PC-186 system requires IBM emulation <ibm/m NI> where /m is the flag for a monochrome monitor). The AX network drives the software much more quickly, as one would expect. I usually use the Norton Integrator, rather than the Commander, as it suits my skills better. You can fire up each of the utilities separately, but the Integrator gives on-screen prompts for each of the utilities prior to their execution and this does make things far simpler. I regularly run the following utilities on the two Winchester disks:

1. Quick Unerase (QU). This operates only from the server and enables the recovery of erased files. It works very successfully if nothing has been saved to disk between the time of the file loss and the time of its use. I have occasionally recovered deleted files after subsequent hard disk activity. In either instances, files do not need to be named: ones which can be unerased are shown on-screen.

2. File Size (FS). This enables me to monitor the total disk space taken up by files (of a given specification) in directory nests. It can, for example, total all files on the disk: all \SECURE files only; all \SECURE*.DOC files for files created in Word by all users, etc.. It totals files by subdirectories, showing file size, total file size and total disk space taken up.

3. List Directory (LD). This can give a helpful graphic representation, directory-by-directory of the hard disk.

4. Speed Disk (SD). This can report on the amount of file fragmentation on a Winchester disk, given as a percentage. It can then attempt to re-arrange the files so that this fragmentation is corrected. This will often result in faster retrieval times and, therefore, quicker network activity. I run it about every month.

Yours sincerely,

Rob Tomlinson

Dawlish School,
Elmgrove Road,
Dawlish,
Devon. EX7 0BY
0626-867318

Dear Sir,

I am about to fit a Datacomms card and upgrade to a Pace Linnet modem offering 2400/2400. I am very interested in any advice from those familiar with software as to a recommended package to replace CONTACT. An alternative might be a PC-286, same modem. Many thanks in anticipation of a flood of informed advice.

Yours,

Tony Leigh

Heath Clark Tertiary College,
Cooper Road,
Croydon
CR9 4AG
01-681-1516

Dear Sir,

AT HCTC we have identified the need to provide "general purpose" network accounts (ie., ANYUSER, rather than FRED) for an unspecified multitude who require casual access to our network. Anyone who has tried this will understand that duplicate (concurrent) logins can cause problems if the same application is being used. The two "identical" users end up competing for the same "temporary" configuration file and within two minutes every station on the network "timesout" and dies.

Can anybody tell me how to detect a duplicate login on an MSDos/MSNet system, irrespective of machine type or workstation address?

Many thanks for any help you can give.

Marcus Morris

 © RM User Group 1990

MAILBOX CHANGE

We have another new number!

This will be the last change, honest!

Because of difficulties and inconveniences, we have moved back to Dialcom Telecom Gold. So all you CAMPUS 2000 freaks can reach us easily, in the normal way - without any special subject lines on:

83:JNL585

We try to check this mailbox frequently, but can't always promise daily - but we try.

 © RM User Group 1990

Conference 90

The User Group Conference will take place from

Friday, October 19th

to

Monday, October 22nd

at the

Penguin Hotel, Daventry

Details from

Graham Townsend

(address at rear of magazine)

Be there!

hDC Windows Express

The Problem

Many managers are reluctant to offer MS Windows over the network due to the dangers and complications that can arise through use of the MSDOS Executive window. Although it is possible to run a single Windows application without the Executive, this denies us the cut 'n' paste facility that makes the Windows environment so useful.

Attempted Solutions

In order to overcome this problem, several 'bright ideas' have been tried. I have even set up eight secure users, each with their own exclusive copies of PageMaker, Write and Paint in their network drive, having removed the connection to P: and replaced it with a connection to C:\public\windows. This reduced the tendency for users to run an application by double-clicking on its name in a read-only directory.

This is obviously an obscure solution with no end of problems: it would be impractical for a large number of users, and we want to add Excel, Draw Plus and Superbase 2. (*Now they've invented Word for Windows!*)

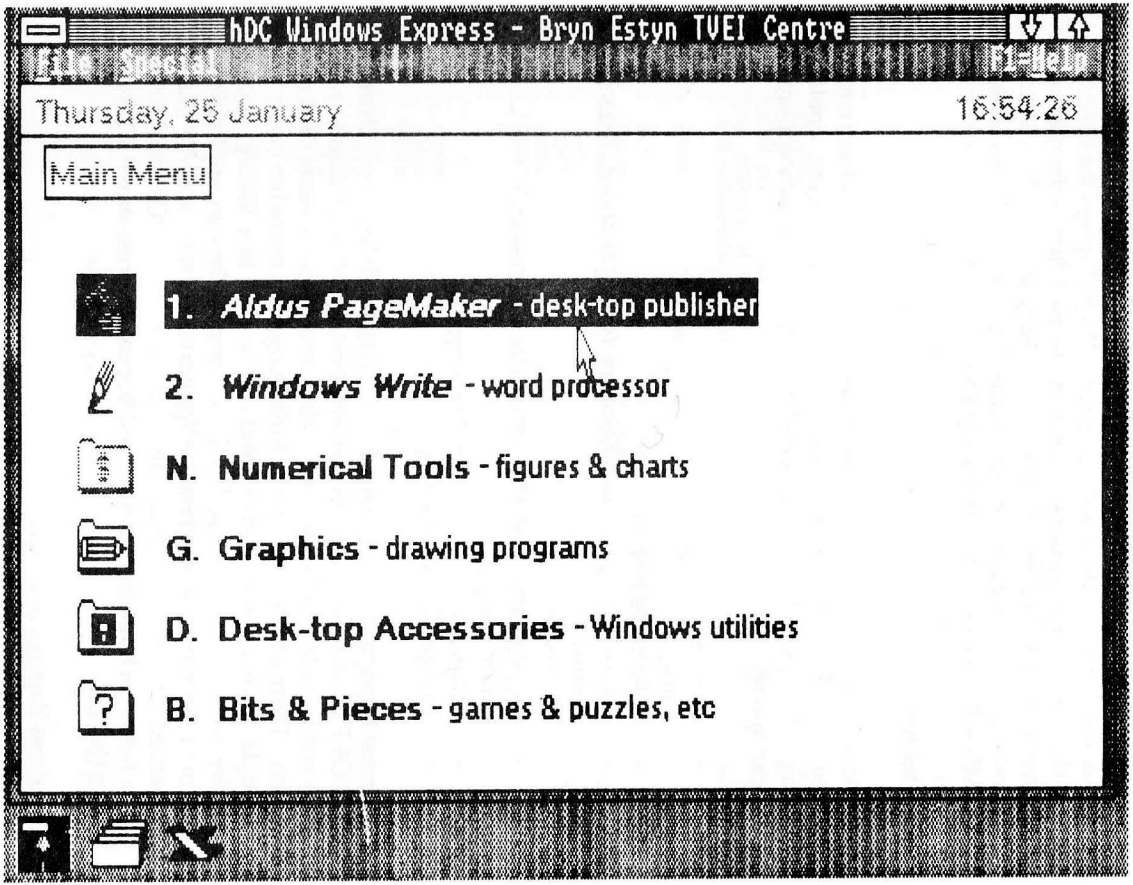
A Dream Solution

It seems that the only way to solve the problem is to spend money. The provision of local hard-disk storage for each workstation is prohibitively expensive, at approximately £600 per machine. A software solution lies in the use of a 'front end' that will allow us to

- launch all desirable applications with a simple point-and-click mechanism,
- give no opportunity to run other (undesirable) applications,
- deny access to the Executive, the Control Panel, etc.

Realising the Dream

Such programs do exist. One is called *Windows Express*, and is produced by an American company called hDC, and is available from NEOW. I did say that the answer was to spend money: Its U.K. price is £80 or thereabouts, but when asked directly about quantity or network discounts, NEOW quoted a price of £50 per copy to RM User Group members.


hDC Windows Express - Bryn Estyn TVEI Centre
File Special
F1=Help
Thursday, 25 January
16:54:26
Main Menu
1. Aldus PageMaker - desk-top publisher
2. Windows Write - word processor
N. Numerical Tools - figures & charts
G. Graphics - drawing programs
D. Desk-top Accessories - Windows utilities
B. Bits & Pieces - games & puzzles, etc

Windows Express

Windows Express comes in two parts that suits our model of 'manager' versus 'user'. *Express* itself is the program which displays the menu and runs the selected applications. *Windows Express Editor* is the manager's tool for creating and editing menus and adjusting settings like whether to deny access to the Executive or not. In this way, it is a Windows analogue of RM's MENU.EXE and CONMENU.EXE.

The Editor

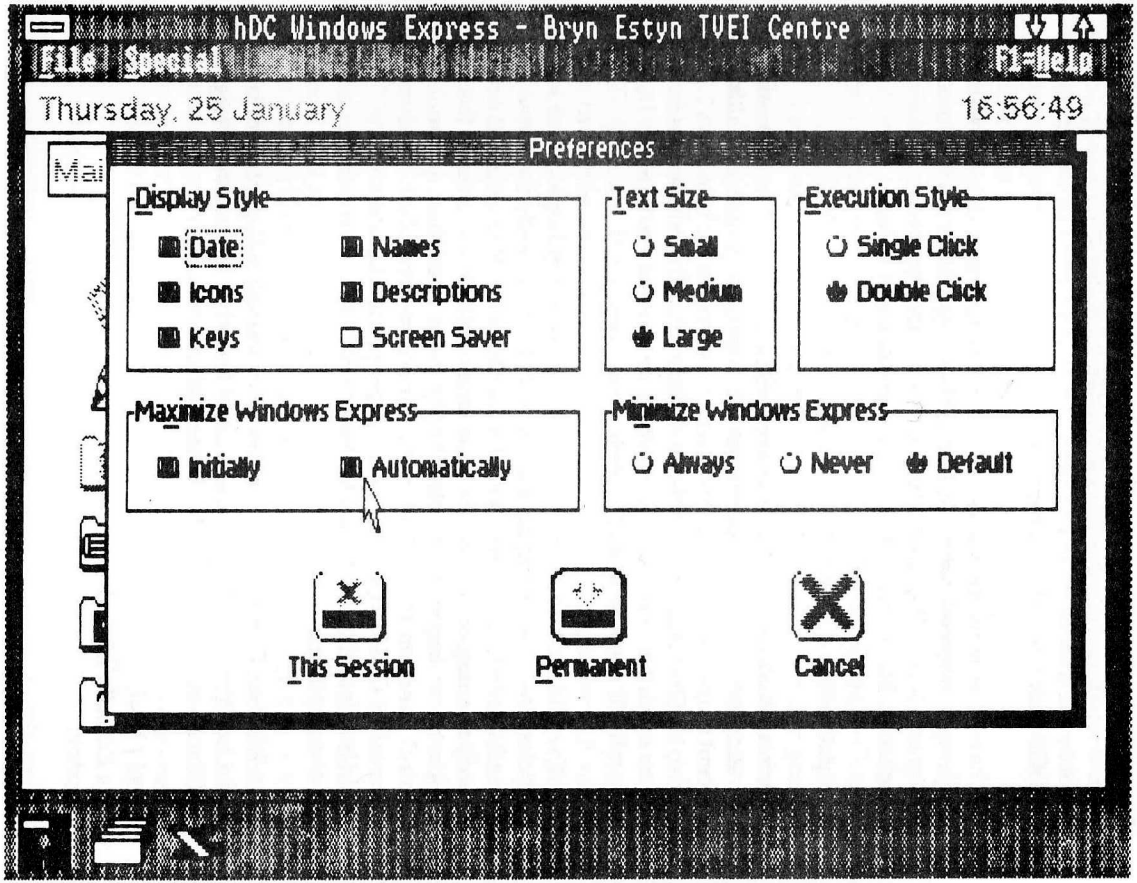
When using the Editor to configure a menu, each selection from a menu screen specifies an application, or a sub-menu. Software would be arranged into logical groups as with RM's Menu. For each application you can specify

- an icon,
- a title,
- a short description,
- a selection key, (I use numbers for applications, letters for menus),
- a password,
- the program name, (full path name if necessary)
- parameters,
- a change of drive and/or directory,
- prompt for file selection.

The most important feature to me, however, is the ability to switch off the MSDOS Executive window. In this situation, the *Windows Express* menu does not include File Load..., File Run... and Make System Disk commands. There are all sorts of nice little things that make life easier. For example, icons are easily edited and can be kept in a library; you can specify whether to minimise *Windows Express* when an application is executed, or maximise it when the application closes. I really like the 'enhanced' buttons that replace the normal 'OK' and 'Cancel' buttons. They feature a large tick or cross and appear to press down when you select them.

Windows Express in action

Windows Express itself is easy to use. To run an application or select a sub-menu, the user just points and clicks. In fact, it is so easy to launch applications that I often find that a student has many copies of an


hDC Windows Express - Bryn Estyn TVEI Centre
File
Special
F1=Help
Thursday, 25 January
16:56:49
Preferences
Mail
Display Style
Date
Names
Icons
Descriptions
Keys
Screen Saver
Text Size
Small
Medium
Large
Execution Style
Single Click
Double Click
Maximize Windows Express
Initially
Automatically
Minimize Windows Express
Always
Never
Default
This Session
Permanent
Cancel

application hidden behind their current window. This is not normally a problem until a user re-runs Write, say, in order to get back to the document they were editing earlier - in another window. They think they have lost it, especially when they cannot load the saved version in this second window since the file is held open by the first! If an application is not on the menus, it can be run from File Load ... or File Run ..., as with MSDOS Executive, should the manager allow it.

We have one network station with a 30Mb Cumana drive, containing single-user licenced software like Aldus PageMaker and MicroGrafx Designer. Normally, anyone using this station has access to the entire winchester, but *Windows Express* protects this admirably.

Compatibility

This is a Windows product and appears to be "correct" in its use of the operating system. IBM Mode is not required on a PC-186, and although a recent magazine review stated that it was written for Windows 2.1 and above, NEOW, and my experience, indicate that there is no reason for it not to work on version 2.03, the current version on Nimbus PC-186. Naturally, it runs on X- and M-series machines.

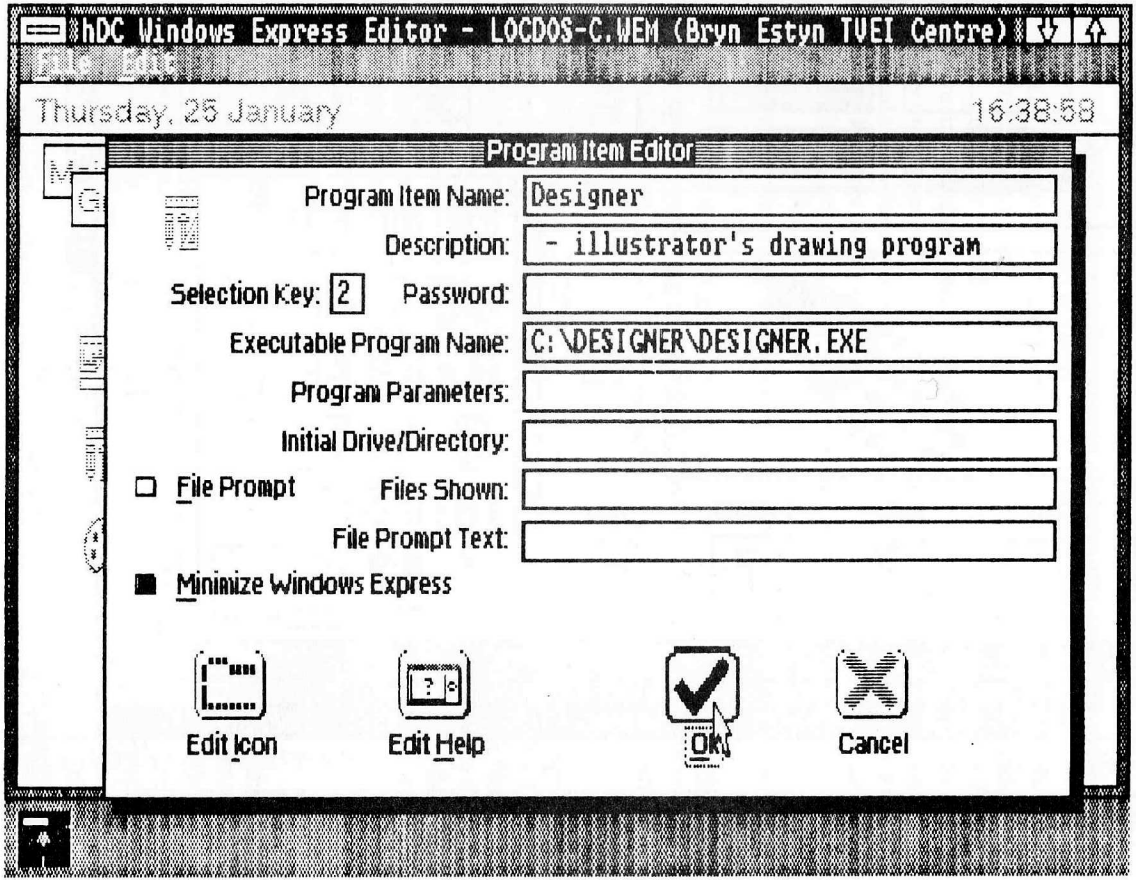
What would I do to improve it? (...if I were a highly paid and highly proficient Windows programmer, that is!) I have already mentioned that it would be helpful if *Express* kept a watch on whether an application is already running or not. WARP!, the screen tidier mentioned in the latest 3rd-party catalogue, may help. Applications like Excel, that offer the Control Panel on the system menu cannot be controlled. Perhaps the removal of CONTROL.EXE, or an appropriate alteration of the PATH could be tried. I normally keep copies of WIN.INI to a minimum, and set any the pupils use to read-only.

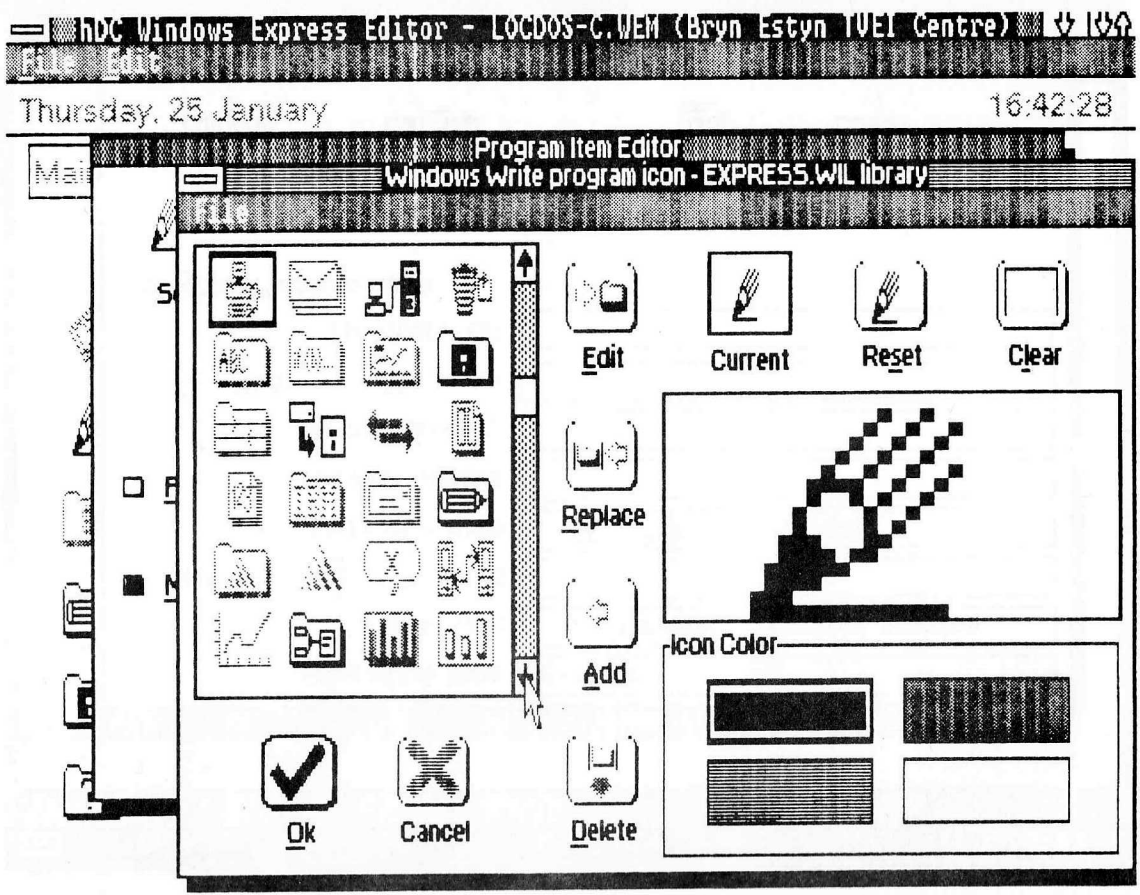
I like *Windows Express*. I can now consider the use of Pagemaker College, Word for Windows, Superbase 2, Corel Draw! or Micrografx Designer 2 and Excel, even if I can't afford them all!

David J Neal,
Bryn Estyn TVEI Centre,
Wrexham.

Editor's Note:

NEOW (Slough 0628-668334) confirm a price of £50 for User Group members, but you must quote your current membership number on your order.


hDC Windows Express Editor - LOCDOS-C.WEM (Bryn Estyn TVEI Centre)
File Edit
Thursday, 25 January
16:38:58
Program Item Editor
Program Item Name: Designer
Description: - illustrator's drawing program
Selection Key: 2
Password:
Executable Program Name: C:\DESIGNER\DESIGNER.EXE
Program Parameters:
Initial Drive/Directory:
File Prompt
Files Shown:
File Prompt Text:
Minimize Windows Express
Edit Icon
Edit Help
OK
Cancel


hDC Windows Express Editor - LOCDOS-C.WEM (Bryn Estyn TVEI Centre)
File Edit
Thursday, 25 January
16:42:28
Program Item Editor
Windows Write program icon - EXPRESS.WIL library
File
Edit
Current
Reset
Clear
Replace
Add
Icon Color
Ok
Cancel
Delete

The Nimbus 186 and Special Needs Software

A review of Widgit Software's *Blob* Programs

Blob 1, *Blob 2* and *Count with Blob* are all programs designed for children with severe learning difficulties. They can also be geared for Nursery children and above, but their primary function is to stimulate the child and to encourage a response.

The *Blob* programs were developed as part of Project Christopher in conjunction with Great Ormond Street Hospital for Sick Children. These programs were originally produced for the BBC Model B computer and not the 480Z RML machine. Consequently, my school like many other special schools around the country bought BBC machines as there was and still is a plentiful supply of specialist software like this.

It is only now, with pressure from education centres, that software houses are now producing Nimbus versions of the original programs.

Another requirement was the easy connection of, and availability of, peripheral devices such as switches, concept keyboards, expanded keyboards and keyboard emulators etc plus the software to run them. With 80% of LEA's opting for the Acorn machines it is little wonder that the various commercial producers went for the BBC market.

Today, the situation is quite different as many schools are now buying RM machines. RM have at last really thought out their hardware in terms of alternative input devices. The parallel I/O port now makes the connection of a concept keyboard or switches etc very easy and this is also true when dealing with parallel printers using the standard BBC centronics lead.

But what of software?

We are in a state of flux at the moment but I feel the way forward will be to a more IBM MSDos enviroment with many software houses converting or re-writing their titles. This is precisely what Widgit Software have done.

Blob 1 and Blob 2

Blob 1 is an introduction for children new to computers and switches. The activities are simple and are designed to encourage and familiarise

children with switch operation. As with the original BBC version the user is asked to select an input device. Selection is made by spacebar and return menu. Any input port can be used ranging from the parallel I/O to the Piconet port to even the mouse buttons! Joysticks, switches, concept keyboard, keyboard, mouse and *Micromike* (Voice Activation) can be used and the software then sets up the machine for the given device.

The next menu then gives a selection of programs which again are selected by spacebar and return. ESC brings you back to this and a further press of ESC brings you back to the input device selection menu. At any time the level of difficulty can be changed using F1 and F9. Also sound and speed can be changed direct from the keyboard during a session.

Blob is a cartoon character, which is a friendly face designed to attract the child's attention. At the simplest level only a "press and see what happens" response is required while further levels involve the child making a choice as to when to respond. The use of good colour sound and movement around the screen means that a severely handicapped child, as well as nursery and infant children, can be stimulated to make a response to an image on the screen.

The following is a summary of the skills which the child can develop:-

Cause and Effect
Tracking
Timing & Control
Directionality
Visual Discrimination
Memory
Two Switch Operation
Spacial Awareness
Forward Planning
Colour Matching
Shape Matching
Same & Different

Balloons and *Odd Man Out* are examples of where the child can learn these skills. The child has to select a picture or image which is different. To those of you not familiar with SLD children this is a fundamental cognitive step and the beginnings of "hopefully" using simple language software.

Count With Blob

Count with Blob is a program designed to help children learn to count and to provide the experience of number in a wide range of circumstances. It is quite suitable for infant children in mainstream as well as for children with special needs. As with *Blob 1* and *Blob 2* it is very easy to select the input device and set up the computer for a new session. This is now a Widgit standard, which is worth considering when a teacher needs simple to use and effective software where time is at a premium.

In *Count 1* and *Count 2* the child learns to count different graphic images which appear on the screen. Control can be very precise with many options available. For example, the animated pictures which the child counts may appear as a set action or the child can use a switch to make the action happen in sequence. What ever the option the teacher has complete control and can set the software to suit individual children very easily.

Counting skills develop as the more complex programs are used but the main idea is to develop basic numeracy.

One criticism is that there does not appear to be a facility to configure the programs for further sessions ,as you now can in *SPA"s PaintSpa*, and this would be useful to save time when dealing with the same children and hardware.

All in all Widgit Nimbus software is very good and excellent value for money. It is also an example of where good practice learnt on the BBC machine has been transferred and improved on to a new system. By re-writing the programs the Nimbus versions of the *Blob* programs are far better and full advantage is taken of the greater speed and graphic capability of the Nimbus.

Sherston Software is another company who have produced excellent software on the BBC and are also now producing Nimbus versions. This I feel will be an ever increasing trend. I would recommend you to view them on their 28 day approval system.

Andrew M.Cullum

The Thomas Wolsey Special School
Ipswich

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PBA

TWO YEARS ON

Jeff Moon

"What do you want one of those for?". Do you know I can still hear my dear wife saying those words as we wandered around Dixons one day. I had seen the Z88 advertised for several months and tried to visualize one or two possibilities but I'd never reduced my desires to that single cold question. Women can be uncannily adept at bringing dreams down to reality with a real bump. Not that I am under her thumb you understand but the promise of a new TV and a microwave oven softened her steely argument.

I am sure that most of you will know what a Z88 looks like. It is the same size as a sheet of A4 paper and about three quarters of an inch thick. It is I believe the only real laptop available to-day. It will not play 'spacey' games because it has no graphics capability and it won't make lots of silly noises. Its screen display is a bit limited being only 8 lines deep but its purposeful design is brilliantly executed. The resident software has been well thought out in terms of necessity and functionality. Pipedream, the main program, is a multiple package of wordprocessor, spreadsheet and database.

There is a Diary whose files are saved as ASCII and therefore it is possible to load them into a wordprocessor, edit them transfer them and then reuse them as a Diary. Associated with this diary is a Calendar and an Alarm. These together with a Calculator are available at any time by the clever use of pop down menus.

The Z88 has a version of BBC Basic, a Terminal emulator and perhaps its strongest feature, an Import and Export facility for transferring information between itself and a host of other machines. The nice touch being that you don't necessarily have to close down one package before opening another. In fact you could have several Pipedreams open at once. Of course you can switch off at any time and when you switch back on everything is as it was. In fact the computer goes into standby mode, its internal batteries maintaining the status for up to a year.

Two years on how has it faired? One month after buying my Z88 I realized that it had to be possible to transfer information from the Z88 to other machines particularly my BBC B. By good luck and a bit of experience I produced a routine for communicating with the BBC. Although my idea was published, there have been more and far better routines produced.

There are now programs available for the Atari ST, the Mac, the PC, the Amstrad PCW as well as the BBC. However one which has received little or no attention has been the Z88 to Nimbus software. This uses the Import/Export facilities of the Z88 and runs under BBC Basic on the Nimbus.

Setting up the software is no problem. Simply copying it into a sub-directory and then calling it up by BBCload NIM88. The only other consideration is to configure the Nimbus machine so that its AUX port is set to O/P. You don't need an RS232 interface board or Piconet module. The lead supplied with the software connects directly to the AUX port.

Using the software on a Network has given me no problems at all. Text files transfer directly into Word or Oxford Write provided the file has been saved as Plain Text on the Z88. However Pipedream, like its ancestors the View family for the BBC, features a carriage return at the end of each line. If you have set up your document carefully on the Z88 then there will probably be no reason to want to remove the CRs. However if you want the flexibility to reformat on the Nimbus then the extra carriage returns will be a headache.

To overcome this problem I wrote a small program for the Z88 which would take a Pipedream plain text file and strip the carriage returns, replacing them with a space. Two major drawbacks with that program were firstly, that text which had been transferred often contained double spaces and meant that a line could begin with a space. The other problem was that paragraphs were lost. The second generation program should now strip carraige returns but if there are 2 together, as there would be at the beginning of a new paragraph, then they are allowed to remain. It should also replace carriage returns with a space unless the character before the carriage return is already a space. This program is listed at the end.

Spreadsheets are a different matter. If you had an ordinary PC you could have bought a copy of PC Pipedream, if you had an Archimedes you could have also had a copy of Pipedream, even the humble BBC has a version called View Professional. In each of these other programs files from the Z88 load directly with no conversion.

Unfortunately the PC version of Pipedream will not work on a Network. It will work fine on a VX machine but not the 186 stations unless it is loaded from the A drive. Why this anomaly occurs I am not quite sure as in theory it should work perfectly. It may work if you have the add-on Nimbus board. Failing that, then the nearest equivalent which is available

on a Network is either Multiplan version 3 or Excel which both accept Lotus 123 files. Sadly Pipedream cannot write Lotus 123 files but a convertor is available with the PC Link II pacakge.

What is PC Link II? This is a piece of software for the PC and a rom cartridge for the Z88 which when the two machines are connected allows the PC to control all the transfers between it and the Z88. Only two key presses are needed on the Z88 and then everything is done on the PC. Again this all works fine on an X series machine but not on a standard 186 station. This same bit of software in connection with PC version of Pipedream allows the wordprocessor to load and save work directly to the Z88 as though it were a native disc drive albeit a bit slower. Basic programs transfer directly as the tokens and implementation are the same on both machines. Hardly surprising as both versions of BBC Basic were written by the same team.

File handling is the same and this means that text based programs for the larger machine can be converted for use on the Z88. These could be for instance computer assisted learning or perhaps multi-choice questioning. In the latter case the resulting answer file could then be transferred and analysed on the larger machine. I am working on the conversion of such a program at the moment. The original program was in fact written by Peter Davidson for the BBC and appeared in the Micro User magazine. However I am modifying it considerably to work on the Z88.

How does the Z88 work in a classroom? We are all aware that something new can act as a stimulus in itself. Pupils are always ready to try even the old things disguised in a new way as the example below shows. Essentially it is writing a report but the method is new. Recently a group of pupils used our Z88 to collect some information from a Viewdata program called Healthdata running on the BBC. (There is a version of this available to run under Revolver on the Nimbus but we have not been able to afford it yet).

They then went along to the library and using the Z88 as a jotter noted down information from several reference books. On their return to the lab they transferred the information to the Network machine and combined their other information which they had collected from a Key database on Antarctica, and some notes from Hyperbook on the network to eventually produce a detailed report on CFC's and their effect on the atmosphere. Using the Z88 it is possible to collect information out in the field and then convert it into a datafile which will load into Key.

Do teachers like them? Maybe as a result of my efforts I don't know but

two of my colleagues in the Science Department have each bought a Z88. Our school has bought one and a friend at another school has also parted with some of his own cash to get one. We have found them useful for Profiling, Records of Achievement and Marking Class registers (programs which we have written ourselves in Basic), producing worksheets by the thousand and as a Record Book using the Diary option on the Z88. Swapping ideas and information, such as diarys and project notes, is now easy because we made up a connecting lead for two Z88s.

The software supplied with the Z88 is probably sufficient for most users. However if you want to spend a bit of money there are several eprom based bits of software available. Of particularly worthy note is Zbase, a dBase clone.

Is it all roses? Well to be fair there must be some trade-off for flexibility and all portable machines suffer this. The basic Z88 is a bit limited. A satisfactory first addition must be a 128K RAM. This is because the Z88 uses RAM for filing as well as program running space. Therefore any file which is being edited and saved as well is actaully twice as big as you suppose.

Also unless you are made of money then a power supply is essential. The Z88 can eat batteries as if they were going out of fashion. Normally the Z88 will turn itself off after about 5 minutes if no keys are pressed. Unfortunately if you put it away in your brief case while it is turned on and in such a way that something presses on the keys then the Z88 will not turn off. Many users have found this out to their cost. An enterprising manufacturer has however come to the rescue with a 'Topper'. This is a firm plastic cover which ensures that the keyboard cannot be pressed through it.

System crashes are not common thank goodness but when they occur they can be disasterous and bear a very high correlation to Murphy's Law. As a result the Z88 should only be considered to be a temporary information store. Your treasured prose and valuable data should be regularly backed up to something more reliable. Perhaps it could be to anoher machine or perhaps to an Eprom cartridge available for the Z88.

All things wear out and we would be foolish to expect the Z88 to be any less prone to wear and tear. The bits that seem the most likely to fail are the little rubber feet and locking lug on the built in stand - both on the rear of the case. Thankfully they are only coppers to replace. The only other part which seems to be reported as failing on many machines after a long period of use is the keyboard. It is a waterproof rubber membrane and eventually its failure is symptomised by the fact that keys no longer

respond to a press. A new keyboard costs about £25. If, and heaven forbid it should ever happen, that you drop your Z88 and the display shatters then it will set you back a tidy £100, and that is for fitting it yourself. Obviously taking good care of your Z88 and getting it insured are two wise moves.

In conclusion I suppose the question which should sum up this review must be 'Would you buy another Z88 ?'. The answer must certainly be yes even if it is only to intrigue fellow passengers on the bus when I am going home although there are certainly many changes that I would like to see and top of my hit list would be a much larger memory as standard.

Where from:

Z88, £195
32K RAM or EPROM Pack £18.00
128K RAM or EPROM Pack £45.00
512K RAM £175
Z88 Eprom Eraser £35
Z88 Spellmaster for Pipedream £51
Z88 Carrying Case £9
Z88 Serial Printer Cable £9
Z88 Parallel Printer Cable £25
Z88 to BBC Link £20
Z88 to PC Link II £30
Z88 to Macintosh £52
Z88 Mains Adaptor £9 ZBase £56
View Professional £50
Pipedream 3 (for the Archimedes) £125
Pipedream (for the PC) £89

All the above prices are VAT exclusive and available from Watford Electronics, Jessa House, 250 Lower High Street, Watford WD1 2AN.

Z88 to PCW Link £28 inc VAT
From TK Computerware, Stone Street, North Stanford, Ashford, Kent TN25 6DF

Z88 to Nimbus Link £11.50 inc VAT
From Lindis International Ltd., PO Box 10, Halesworth, Suffolk IP19 0DX

Hyperbook £49
Authoring Software £10
Datafiles £15

All the above are exclusive of VAT and available from Longman Logotron.

Antarctic Database £17.25
Key Program £9.95
From ITV Association, 6 Paul Street,London EC2A 4JH

Healthdata (Nimbus)Standalone £14.95, Network £28.95, BBC £12.95
From Healthdata, 21 Vicars Close, London E9 7HT

Topper £7.75
From A.Gray, 49 Olney Road, Emberton, Olney, Bucks MK46 5BU

The Basic Program to remove Carriage Returns from a Pipedream file.

```
10 *NAME CRREMOVE
20 CLS
30 PRINT''Pipedream CR Remover''
40 INPUT''Name of Text File ? ''file$
50 T=1
60 R%=OPENUP(file$)
70 IFR%=0 PRINT''File is Missing. Press a Key'':G=GET:RUN   80 N=BGET#R%:IF
CHR$N=''%'' PRINT''Not a Plain Text
  File'':G=GET:RUN
90 PTR#R%=0
100 Z%=OPENUP(file$+''.ASC'')
110 IF Z%>0 PRINT''File Exists Replace Y/N ?'':IF GET$=''Y''
   GOTO 120:ELSE Z%=OPENOUT(file$+''.ASC'')
120 REPEAT
130  PRINTTAB(3,3)''Processing line '';T
140  T=T+1
150  INPUT#R%,A$
160   IFA$='''' A$=A$+CHR$(13)+CHR$(10)+CHR$(10):GOTO 180   170   IF
RIGHT$(A$,1)<>'' '' A$=A$+'' ''
180  FOR J=1 TO LENA$
190    N=ASC(MID$(A$,J,1))
200    IFN=163 N=156
210    BPUT#Z%,N
220  NEXT
230 UNTIL EOF#R%
240 CLOSE#Z%:CLOSE#R%
250 END
```

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Castle View School, Cartwright Road, Hylton Castle,
Sunderland, Tyne & Wear. SR5 3DX

VERSION 3 of NOVA T

from TIMETABLE SYSTEMS

Now available (Jan '90) is the long awaited Version 3 from Timetable Systems(or Clive Stott as he is known to devotees). This update of Version 2 is one which gives the timetabler more computer power in the planning and completing of the school or college timetable. It is not meant to rival the highly expensive IBM offering as it still retains the main "NOVA" principle of the Timetabler being in charge at all stages and being able to backrack if necessary.

The most important new facility in Version 3 is the concept of Autoscheduling, which will give you the consequences within the timetable of the parameters you have set. Put simply, you start as normal with the scheduling of an Option Group or Band Set having already entered some other classes.

You then timetable a couple of lessons and the Autoscheduling now attempts to complete the task for you by scheduling lessons itself and reporting these on the screen or by reporting that, for example, you want 5 Maths classes on separate days in singles and you can only have Maths on 3 days.. or ..you want 3 double lessons of Humanities on separate days and you can only have doubles on 2 days in the week with what you have already timetabled with the staff you have allocated to that Humanities setting.

Any scheduling can be undone at any time so you can go back and look at your allocations. There are full screen displays which for instance will give you for a Band Set all the classes/option groups/band sets/teaching sets which could be timetabled for each period. In Autschedule routines, you now specify the period allocation for each class, singles, doubles, triples or quadruples and this is adhered to in the Autoscheduling process. If this sounds complicated, it isn't. I can vouch for its simplicity and power as I used it as part of Version 3's testing and development programme for my 1989/90 timetable and it speeded up the process and despite what my colleagues might say, it improved its planning and implementation.

As part of this improvement, there is now a complete Clash Table section allowing you to do a clash table for Band Sets and Option Pools after you have done the teacher allocations. It will list the complications and print them out.

One of the criticisms of Version 2 was the lengthy process required for timetable editing. This editing of classes/rooms/teacher exchanges/ subjects is now done On-Screen in the Scheduling Routines Menu and is very immediate. Also available on screen is a Spreadsheet type Timetable by Staff or by Rooms, on which you can also edit.

Another criticism was that Curriculum Checks was not that useful as Staff could only be assigned to one department..a thing of the past now.. each member of staff can in the Primary Data files be assigned to up to 6 subject areas with a specified number to each so that after timetabling, the " books" will balance out.

As we grind on under the new DES requirements, which define certain Subject Codes (but leave hundreds without any !), Version 3 allows each Subject to have 2 codes. One is the good old faithful one you have always used at your school, but there is now the facility for Standard Link Codes which can be standardised to your authorities or the DES and they have a maximim of 3 characters rather than the 2 for internal Nova codes. Printouts will be available in either set of codes.

Talking of printouts, Version 3 now allows you to define ,if you wish, the format of your own printouts by giving you the opportunity to design the cell with staff/class/subject/room/year codes as you wish and include only that data that you wish.

One of my responsibilities is that of Cover and this section shows significant changes. You can now put in 15 different alphabetic codes in the "reason for absence" column, which greatly helps in the filling in of forms for admin. When actually filling in the Cover on the computer, the screen will now include in the list of "free" staff the code for any supply teacher who has been entered in any period that day but has not as yet been used for that period in question.

A fuller summary of the covers/absences of staff entered is now given as well as more refined printouts for admin on teacher covers done. You can now give teacher categories for staff to indicate extra frees/over-timetabling on the maximum, or you can work out a rota for staff cover on each period.

One of the major improvements for me has been the ability to now specify up to 3 years for staff cover (rather than free staff i.e. when you have years 5 6 and 7 all doing exams and they have study leave). A tip from me is that it is possible to do exam invigilation on the absence cover routine (for afficionados only what you do is to create another timetable exactly similar to the active one but you creat a new year say EX , a new subject

called AM .. then add on to the teacher data teachers who are in fact rooms used for exams.. give them a full timetable using Non-Standard Class Codes in band set 1 and then call them up in the Absence routine as if they were a teacher who was absent.. on the printout you will see the name of the room even something to indicate it is an exam cover and it reads EX/AM1 as the class to be covered. ring me if you wish a further explanation).

The general layout and appearance of the menus has changed so that each menu item is now prescribed a letter which is typed to move the cursor there and RETURN then confirms the choice which will take you into the next menu(each menu is now given a "LEVEL" so that main menu is level 1..and travelling into sub-menus takes you into differing levels.

All the horror stories you hear about system crashes with no back-ups are still true or at least are to my knowledge from hysterical phone calls I still get. Version 3 has a sophisticated back-up system written in for you to follow so excuses are now nil !

I will offer to demonstate Version 3 to anyone willing to travel to Wanstead(end of the M11), it is significantly more powerful, it has more sophisticated routines and as always, being a NOVA product, it is written with teachers ni mind and in a language and way they understand. Clive still intends to offer the same kind of back-up as before with certain strings attached. A maintenance contract of £45 will give you updates of Version 3 and also of NOVA-S in MAY/JUNE of this year.

I have so far used VERSION 3 on a NIMBUS PC2 and a NIMBUS Hard Disk and have experienced no problems. The new Version comes with full instruction on installation including directories so that you can run this year's timetable at the same time as starting next year's.

Please phone if you wish to talk, ask questions, wish to see Version 3 or if you have questions on NOVA-O or NOVA-S which I will write about later if there is interest.

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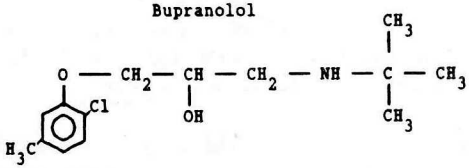
Included Fonts:

Italic	Greek (α β γ Γ Δ)	Bold
Symbol (¶ ® £)	*Script*	Foreign (ä B Å æ)
Gothic	Linedraw ($\top$ → |)	Small
Math I ($\approx$ $\pm$ ∞ $\leq$ $\neq$ $\in$)		
ORATOR	Math II ($\int$ $\left\{ \right.$ $\sum$	

ChiWriter is ideal for chemical formulae...

Bupranolol



and Mathematical formulae...

$$iB_r[\tilde{a}^n_{kl}] = \frac{1}{2}(h_{n-1} + h_n)\int_0^R 2\pi r dr[\rho^{n*}_k(r)]\frac{d}{dr}[\Psi^n_l(r)],$$

and tables:-

Physical Quantity	Operator	Coordinate Form
Energy	$\hat{H}$	$\hat{H} = -\frac{\hbar^2}{2m}\nabla^2 + V(r)$

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PostScript printing

from Stephen Rochford

I had been using Microsoft Word version 3.10 on a Nimbus PC186 for some time with an Apple Laserwriter IINT and was unable to get it to print in the AvantGarde font, in spite of the fact that Windows applications could print it perfectly.

Some investigation of the APPLASER.INI file revealed why; the font name was spelt wrongly! In four places in the file it had been spelt as AvanteGarde. Correcting this gave me a full range of fonts from Word.

If you need to make the changes then all you need to do is load the file APPLASER.INI into Word and issue the command to replace Avante with Avant. You should see that 4 replacements are made. Save the file (making sure that the formatted No option is selected) and then everything should work.

The same changes need to be made to the APPLAND.INI file if you want to work in landscape mode.

In similar vein, we have recently bought a second PostScript printer in school; this time a Ricoh 6000PS and we are quite pleased with it (it cost just under £2000 which is the cheapest such printer I know and it is faster than the Laserwriter).

Its PostScript interpreter, however, has a slight difference from the Laserwriter; it refers to HelveticaNarrow as HelveticaCondensed. I have never needed to use this very small font so this has not caused a problem but it's worth bearing in mind that if your printer keeps giving you Courier when you had asked for something else that it may be because your printer driver is asking for a font by the wrong name.

Borland Quattro

from Stephen Rochford

Borland Quattro is a spreadsheet with graphics and database capabilities offering a high degree of Lotus 1-2-3 capability if you should want it for just £50 to educational users. We are frequently told that one reason for buying Nimbus computers is so that we can run "Industry Standard" packages such as 1-2-3 but unfortunately most such packages have "industry standard" price tags as well. RM have gone a long way to help by including an impressive bundle of software with their networks but the spreadsheet area always seems poor (I know that Excel now comes with networks but it didn't when I bought my network and, anyway, I understand that running Excel on many stations is very slow).

Why do we need big spreadsheets? The short answer is that we don't!

What is useful is the range of facilities that are included in the one package. For example, in the past to teach RSA CLAIT I have used Multiplan for the spreadsheet and ILECC's Multigraph for the graphs. Now I can use Quattro for both.

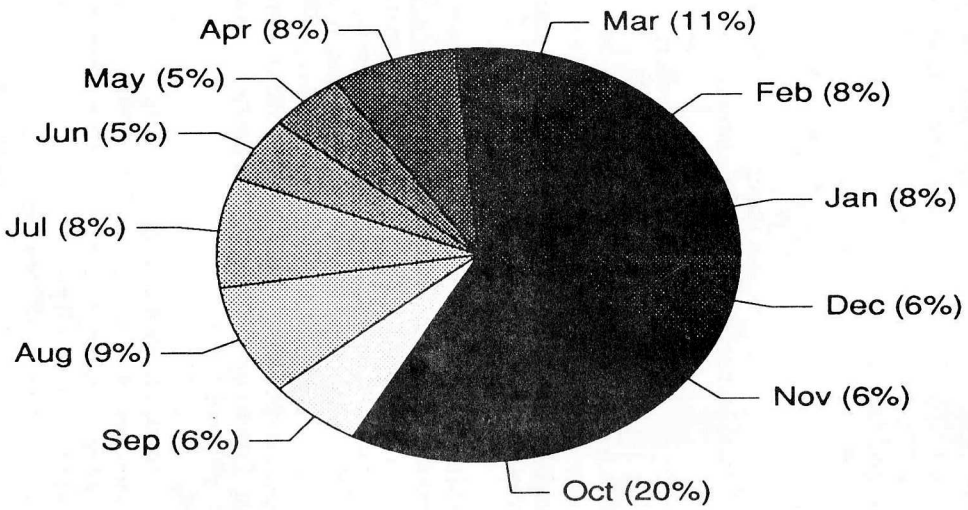
The same applies to GCSE courses which require pupils to use spreadsheets and also present information graphically. It is also possible to do some database work with the program. Quattro can read dBASE files directly and the charts accompanying this were simply produced by reading the membership file into Quattro, getting it to count the month and year in which you joined and then plot charts from this. (Quattro's printer support is excellent; it can drive just about every printer I know from cheap Epsons up to and including PostScript and does a good job even with a 9 pin dot matrix printer).

It is remarkably easy to produce charts using the package and this is, perhaps, one of its problems. One of the options in GCSE information technology concerns the graphical presentation of information and I have found that pupils will just stick data into Quattro and then get it to draw a chart - even though they may be generating a meaningless graph. I suppose that letting them do this can be beneficial; providing that you can get them to understand that what they have done is silly and why then it may mean that they will approach the graphs on TV and in the papers with some healthy scepticism.

The package also has application in science courses; often pupils collect

A chart to show the month in which

members join the group



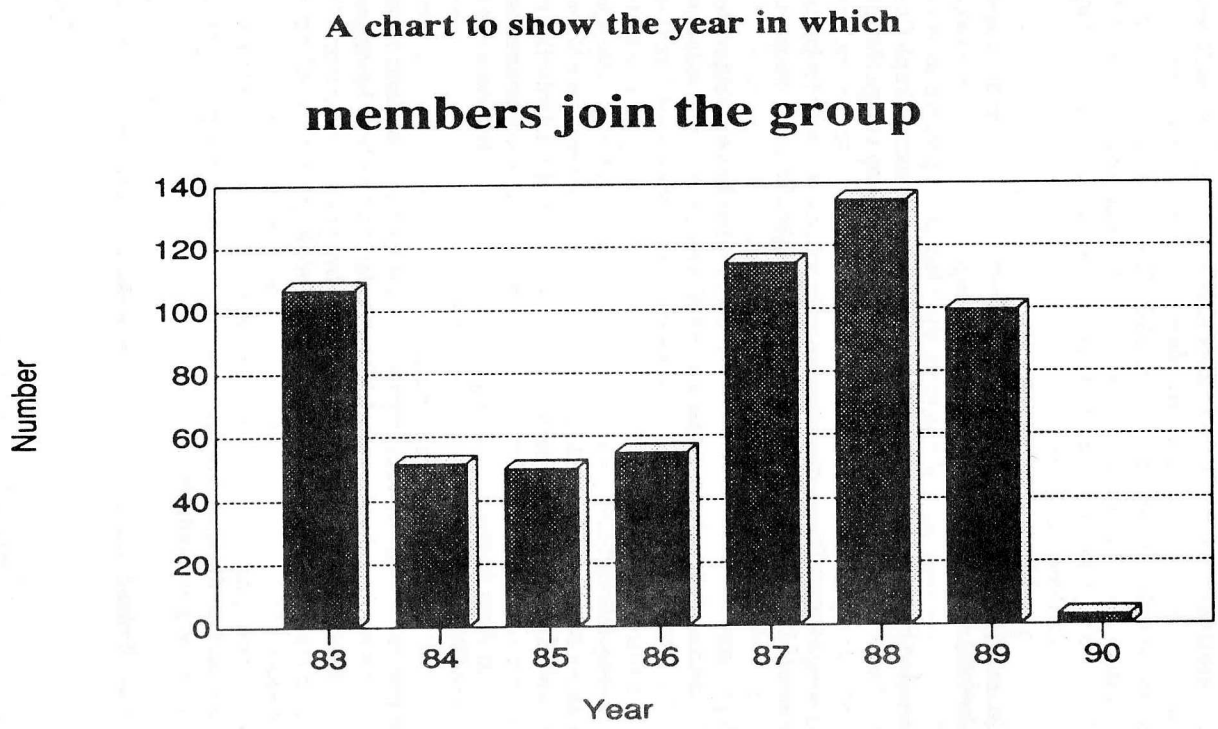
data from science and then plot graphs. They can now use the computer to help with this work. Humanities courses such as geography and history are doing increasing amounts of data analysis and this will certainly continue with the National Curriculum. Quattro can be of service here. Of course, it will not replace something like Quest or Grass as an introductory package but I feel it is important not to underestimate the ability of children to get to grips with packages which we may find daunting and Quattro certainly can be that.

Quattro's biggest failing is something which I am sure was designed in as a benefit. It is possible to get to the same topic in a menu through a variety of different routes. For example, the titles on a graph's axes can be changed by using the Graph Titles command or by using Graph Customise X-axis Title; this can be confusing because the way you get back to the next menu you want will depend on how you got to the one you are looking at now! The menus can be customised, however, so I suppose that it would be possible to remove the confusing or duplicate options.

A problem with running Quattro on the Nimbus has nothing to do with Borland at all. It is designed for an IBM PC and, as such, will only run with SEPTC installed. It does this very well with two exceptions. Firstly, if you have firmware version 1.32C or earlier then your graphs will not be properly labelled on screen (but will print perfectly). Secondly, Quattro makes extensive use of colour to highlight parts of the screen. It expects to find 16 colours but on the Nimbus there are only 4 available; this means that it is necessary to do some careful setting up of the colours so that you don't end up with error messages appearing in red text on a red background!

In general, however, I am impressed with Quattro. Borland have produced a very good program which works fast and without having to read from the disc too frequently (important when you are using it on a floppy based machine). For those who know 1-2-3 the program can be customised so that the menu structure is the same as the Lotus program. Their scholar program makes it available at a reasonable price to all educational users and for those who really do need a more powerful package Quattro Professional is available.

Stephen Rochford is currently Membership Secretary of the Group


A chart to show the year in which
members join the group
Number
140
120
100
80
60
40
20
0
83
84
85
86
87
88
89
90
Year

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A LITTLE JOB

or how to help your SILO

Have you ever started one of those simple little jobs which leads to another simple job which leads.... and so on until eventually exhaustion sets in?

Well, about twelve months ago I did exactly that. Firmly of the opinion that the best way to learn is to do I picked up my *Dataease* program (compliments of the network software bundle) and began to make a database to record the serial number, configuration, location etc of the school computer equipment etc.

I have to say that while not very impressed with the *Dataease* tutorial with its bias towards Zip Codes and state ID's I did find the program itself quite friendly. However, as I was working on my own database the teacher in charge of Work Experience and Careers at school came to complain that the second piece of software she had bought to administer the work experience programme was no better than the first and was duly being consigned to the rubbish bin to be replaced by the old biro and paper system.

Like a fool I suggested *Dataease* and yours truly must be able to do better.

So, after two or three hours pouring over what exactly she needed from a database (and coming away totally confused and overwhelmed by the mountain of paper) I set about designing a system. In my ignorance I expected it to be a comparatively easy exercise suitable for a mid-term project - Just a matter of matching company data with student data. That was when the first little job became a second little job.

Here in Suffolk we have three School Industry Liaison Officers (SILOs). Each SILO is responsible for an area of the county and has, over the years, established a wealth of contacts with and information about local industry and schools. As you would expect each SILO had a different method for gathering, storing and disseminating what is basically the same information. However, the information held by each SILO was similar to that held by our own school but likely to be more recent. So, off I went to talk to the SILO for my area.

The SILO for our area was actually in the process of assimilating returns from a postal survey of over 1500 local industries and, having had computer experience in her previous post, was looking to store the data

on computer. Problem number one, she didn't have a computer although she did have periodic access to a Nimbus 186 with a copy of *Dataease*.

It soon became obvious that the information stored by the SILO was in fact far more comprehensive than that needed for our work experience programme. Nevertheless, having started I determined to continue and produce a database to meet her requirements. The production of this part of the project took many weeks and involved numerous changes as the SILO became more familiar with the program and increased the demands she placed on it.

As the database was developing the two other SILOs became involved and they too began to ask for more facilities and reports to be added. With all three SILOs co-operating on the production of the database the project soon became ambitious enough for a dedicated computer, printer and some clerical assistance to be made available. A PC286 with 40mgb Winchester and an Epson LQ-860 printer appeared with a speed seldom witnessed in education circles.

I was actually amazed at some of the information produced by the database. Without going into too much detail it showed companies who offered, free of charge, computer paper, electronics materials, camera equipment, cassettes, carpet offcuts, metal offcuts, motor accessories, paint, plastics, paper, cloth, lifeboat rafts, tiles and used power tools etc. There was also help with brewing, catering, woodwork, commerce, computing, video, diet, drama, electronics, law (possibly very useful in the current educational climate), photography, fund raising, sponsorship, advertising and lots more. A lot of companies also offer to help with Mini/Young enterprise schemes, industry weeks, open days, careers advice, demonstrations in school, use of their premises etc. The full list would cover pages.

If yours is a school in Suffolk I strongly suggest you contact the SILO for your area or Ms P Reeve at Shire Hall in Bury St Edmunds. If you belong to an area outside Suffolk then make enquires in your county careers or education department to see if you have something similar - I am assured you will have. I guarantee you will be as amazed as me by the range and variety of help available from local industry.

However, back to my original "little job". Having exported the relevant data from the SILO's database I now had the basic information for the school work experience project. The first task was to clarify the steps in organising work experience.

1. Contact the local companies and ask if they could offer placements to students. The companies needed to know the dates for our program and we needed to know how many placements were available, what they involved and such things as were canteen facilities available, hours of work, would special clothing be needed, Health and safety consideration etc.

So, the first step was to have the computer generate a standard letter to all companies. As an added refinement, if the company had previously offered placements the computer would thank the employer for previous help, list the number and type of placements offered and then ask for the new placement information. The program also produced address labels - something which previous programs had made somewhat complicated.

2. As companies returned their placement details they were entered into the computer. The program then printed details of all the placements for display on the careers board so that pupils could check them.

3. Obviously, pupil data such as name, year/form and D.O.B. were also entered. Each pupil was allocated a computer generated code (incidentally, all placements details were also stored with a computer generated code). Armed with their own code and the code for the placement they wanted, pupils went to the careers teacher to confirm their placement.

If the placement was still available the computer generated a letter to the pupils parents outlining the school policy on work experience and giving details of the placement for their child. The pupil would also be given printed details of their placement. eg the company name, who to contact, the dates and hours of work and so on.

If the placement was already filled the pupil could search for an alternative on the computer rather than by reading the display board. So, for example, if you want a placement working with animals you could search the placement description for the word animal.

4 At anytime you can list unplaced students, companies which have not completed insurance forms or unfilled placement offers.

I should point out that the database is designed for a range of users. Pupils have read only access to limited information and cannot print. Staff have access to a menu system which automates virtually everything and there is a user with full management permission.

5 Just before the work experience program actually starts the computer is used to send details to all the companies of how many pupils to expect, what their names are and who to contact if anything goes wrong.

6 Finally, once the work experience is completed the computer archives all the pupils data and clears down all the placement details.

With all the data for pupil placements archived it is simplicity itself to produce for any pupil a history of their work experience throughout their school career. For RPA's and reference writing the database has been a major contributor.

This has been only a superficial look at the database and I haven't mentioned the facilities for obvious things such as pupils changing their placements, production of list and the scope for producing customised reports. Already the database has over sixty customized reports and I have no doubt that it will have more after the next work experience program.

In addition to replacing a mountain of paper based chaos with a definite structure the database has enabled staff to devoted much more of their valuable time to doing what they are really meant to do - teach. There is a confidence and assured flexibility in the system that makes its users appreciate that the age of the computer has really arrived.

I used to think that the work of careers teachers was easy (but then everyone here thinks my job is too easy for words). This "little job" has made me aware of just how much is involved in organised something like work experience. Under the new education regime all schools are expected to undertake it and I can only express the opinion of colleagues that a program such as this saves hours (of their time if not mine).

Paul Bramwell

Editor's Note:

We hope to put Paul's program in the User Group Library, at a special price. Contact the Librarian for details

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If you are familiar with programs from Newman Software, ensure that you know what latest products are available for the Nimbus

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Send in your order today or write for further details to Newman Software, Computer Centre, Newman College, Bartley Green, Birmingham B32 3NT (021 476 1181)

Spring Cleaning your Hard Disk!

It seems like only yesterday that Winchester drives for PCs were undreamt of luxuries. Today, with 30, 60 and even 300Mb drives becoming commonplace, there is a serious need for powerful disk maintenance and organisational software. No matter how much data you save to floppies, your hard disk always seems to need frequent "house-work" to tidy it up.

In my job, I use a number of different RM machines (PC-186, AX/2 and PC-286) and have limited time to spend on organising their hard disks. I therefore make extensive use of *XTREE PRO*. This is a powerful tool which I find absolutely indispensable when tidying up a server's disk.

XTREE reads your disk and provides you with a graphic display of the complete directory structure. You can move the highlight bar to a sub-directory and zoom-in on the files it contains. Individual or groups of files can be tagged by the touch of a key. It is then possible to delete, copy, move, etc. the tagged files. You can make new sub-directories and rename existing ones, even if they still contain files.

On a server, it is really quick to check file attributes and if necessary to set them to read-only. Even system and hidden files are shown and can be "un-hidden". The on-line help is very comprehensive and there is a built-in editor - ideal for tinkering with those batch files! *XTREE* is like a more powerful and graphical *RMTREE* and much easier to use. I wouldn't be without it!

However, because *XTREE* is so powerful, it is very easy to delete the wrong files. This is equally true if you use wild-cards in MS-DOS. You know the scenario - it's late on a Friday afternoon and you're just tidying up before shutting down for the weekend. You type DEL *.BAT instead of DEL *.BAK and suddenly all your batch files have gone! (If it hasn't happened to you yet, just you wait!). Don't panic - all is not lost!

Get hold of a copy of *NORTON UTILITIES* (I use the Advanced version - 4.5). Under MS-DOS, DEL does not actually delete data from the disk, but simply marks the sectors formerly used by the file, as free in the File Allocation Table (F.A.T.). It is only when you save new stuff that things get overwritten. *NORTON UTILITIES* is a collection of nearly 30 useful programs, easily accessed by a menu system (the Norton Integrator). The Quick Unerase program can usually restore freshly deleted files without too much trouble. Other utilities include; Safe Format, (which won't wipe

any existing files from the disk), Format Recover, Disk Test, Disk Doctor (if you have really serious problems!), and Speed Disk.

I use the latter on a regular basis. If a hard disk is used frequently, the files become fragmented and access times are reduced. Speed Disk is an "unfragment" program, which aims to optimise disk performance. The first time I used this utility, my disk was something like 80% fragmented and it took over an hour to optimise it! (that's why they say to do it often). I don't use *NORTON* as frequently as *XTREE PRO*, but when I need it, I really do need it!

Lastly, I have started to make limited use of *PC TOOLS*. This combines some of the features of *XTREE* and *NORTON*, along with a Desktop Manager, all of which I could do without. However, what I do like is it's Hard Disk Back-up program. This enables very fast Back-up onto floppies and includes file compression, so that you can pack an incredible amount into a small space.

I would be keen to hear from others who have used these, or similar utilities on RM kit.

High and Low Density Disks on a PC-286

Users of the new M-Series range of RM computers can use both high or low density floppy disks. High density disks are more expensive than low density ones, possessing a second slot in addition to the write-protection one. They can store up to 1.44Mb of data, compared to the 720K limit of the low densities.

However, in a recent survey, these high density disks were not found to be of any significantly greater quality than low density ones! In fact, there was a greater variation between manufacturers, than between disk types!

Under MS-DOS 4, to format a floppy in drive A: you should type FORMAT A: /F:720 to format a conventional low density disk. Simply typing FORMAT A: defaults to a high density format (ie 1.44Mb).

Knowing this, I was somewhat surprised to discover that the PC-286 will happily format a low density disk to the full 1.44Mb capacity! The drive clearly doesn't look for the second disk slot and therefore can't distinguish between disk types.

Has anyone else found this to be true? Have I hit on a way of saving

money? Is there any point buying high density disks for the PC-286? I'd be keen to hear from anyone who finds low density disks which have been formatted to 1.44Mb unreliable.

Keith Whiddon,
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School Lane,
Pirbright, Surrey, GU24 OJN.
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Wording from Print

No, the Editor hasn't flipped at last. This silly title simply illustrates the sort of thing which is always happening to me when my classes are trying to print from *WORD*.

Why am I writing this note? For three reasons: first, because I need to relieve my frustrations; second, because I still hope that someone out there will have The Answer to my problem, and finally, because the Editor suggested it.

Picture, if you will, a Sixth Form W.P. class, who have all done an exercise and who all want to see the print-outs. If we had been using *Oxfordshire Write* (for instance) there would have been no problem: whenever and however the stations had sent their work to the server, their documents would have been printed in order, in_toto and in an atmosphere of quiet confidence. (Which is no more than we should expect of a professional network, after all; with SDLC CSMA/CD and all that stuff, surely the system should be able to cope with two eager users sending files at the same time?)

Not so with WORD. Things go wrong. Document files get mixed up, and the result at the printer can be indescribable. At first, we thought that the problem stemmed from users not waiting for the file to be fully transmitted before pressing CTRL/ALT/PRTSC, but now I don't believe it.

We use a disciplined approach to this, with no station being allowed to key Print Printer until Sir gives the word. (No pun intended.) This way we make sure that only one file is in transit at any one time. Then CTRL/ALT/PRTSC is pressed; once only. And what do we get?

Occasionally, we get a single perfect copy of the document. But sometimes, we get a succession of part-copies, perhaps interlaced with parts of other documents, and often with the first one or two being unformatted. This, of course, puts the paging of the printer out of kilter, and before Sir can get to the server, to switch on the keyboard and begin print-killing all the PQs within sight, we have a group of disappointed pupils who have done everything correctly but who still end up with documents printed across perforations.

Browsing through the Bulletin Board the other day, I noticed that one school had equipped its network with a few local printers, connected to

the stations via printer sharer switches. Now there's a thought!

Finally, a little gripe which has nothing to do with *WORD*. Why do we have only one printer queue on our networks? I have two printers connected to my server, so why not two queues? If a file at the head of the queue is directed to a non-functioning printer, the whole queue is held up. (Roll on Net3 with its "improved queue management facilities", although from the way I interpret the advance data, there's still only one.)

P.S.

A funny thing happened the other day. The self-same W.P. class had sent their files to the printer and were awaiting the arrival of their documents, but nothing would print. Check: printer on and on-line? Yes. Check: the other printer on and on-line? (For the reason stated above.) All O.K. Check: what's in the print queue? Nothing! Check status at the server: no open spool files; nothing! Persuade class to do it all again, slowly and calmly: still nothing getting into the queue!

Somewhat hysterically, I checked again that the printer was plugged-in properly, and noticed that the Centronics connector was slightly out at one end. I pushed it in, and all was well: documents went into the queue quite normally, and some of them even got printed correctly. But why should unplugging the lead stop user files from joining the queue, when switching off the printer doesn't do so? Another of life's mysteries.

Jake Loddington,
Queen Elizabeth's Grammar School,
Blackburn

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Writing for the Magazine

Please do! All contributions are welcomed and most are published, subject to editorial requirements. Your contributions should be sent on disk from any RM machine and it may be helpful in some cases to include a printout of the article. All disks are eventually returned!

One of the greatest needs is for suitable illustrations, but these need to be disk files which can be transferred into *Aldus PageMaker*. *Windows Draw!* pictures are the best, but *PC Paintbrush* pictures are acceptable. If you want to send in graphics from such as PAINT*SPA* or NEW*SPA*PER, please print out with a new ribbon so that there is some chance of making camera-ready copy. Good black & white photos are great.

For those who would really like to help the Editor and are using a Nimbus and either *Microsoft Word* or *Windows Write!*, please format your text in 10 point Palatino. When using *MS Word* you will need to select a postscript printer (Apple laser) from the Print Options menu. Do **not** use a style sheet (for various reasons!)

If you are using, say, *WordStar* on a 380Z or 480Z (*and why not*?) then do it as a non-document file. I cannot read BBC disks , but you may be able to email me on 83:JNL585. PageMaker 3 files on Mac disks can currently be read.

Don't be put off by any apparent technical depths in material you read in the Magazine. We *eagerly* welcome simple, straightforward stuff from novices for novices. There is no minimum length, either!

If you've an idea, but are uncertain as to its usefulness, please drop me a line or ring me.

We are very keen on any material concerning BBCBASIC-86 and the running of BBC programs on the NIMBUS PC-186.

Articles/letters about your experiences with RM, their kit and service are welcome, as are the same about other vendors of hardware or software for the RM range.

We will now pay you £5/page of text. Sorry, but for graphics, listings, etc., nothing. All payments are at the Editor's discretion.

Deadline for the next Magazine is April 21st 1990

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Please sed your form to: Stephen Rochford, RMUG Membership Secretary,
George Stephenson Community High School, Southgate, Killingworth, NE12 0SA

Please photocopy this form

RM

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OK ..... we admit it, the caption is a bit over the top, but hands up all of you who have had dealings with RML at Oxford. Well, those of you with your hands up will know what nice people they are. MSM knows what nice people they are because we have dealings with them every day. So, who is MSM? We are Micro Systems Maintenance Ltd., RML's authorised national service agents. Our staff have been associated with RML since their earliest days, and whilst modestly forbids us to say that we know them intimately, we will readily admit to being intimate with the insides of those clever machines that they make. If your 380Z, 480Z or Nimbus needs attention, we'll fix it for you, and we won't charge you the earth. If you are responsible for keeping networks up and running, talk to us about a maintenance contract; our quotation will pleasantly surprise your financial manager.
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